

TANK NOTES

STATE OF
NEW MEXICO
ENVIRONMENT
DEPARTMENT



... A Newsletter from
the Underground
Storage Tank Bureau

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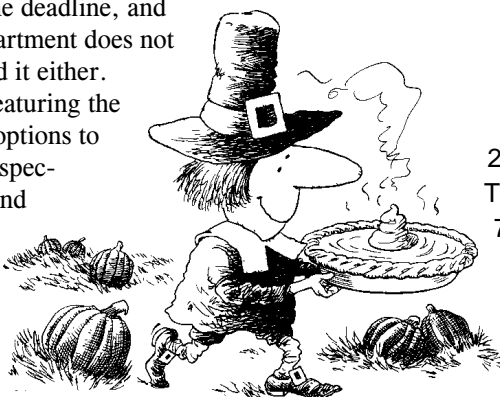
Illegal to operate UST if not upgraded by 1998 deadline

As the pie charts reveal, 57 percent of the active USTs in New Mexico are still not upgraded to December 1998 standards. There are 68 certified tank installers in the state. Those two conditions will create a bottleneck as the demand for service exceeds supply. Even today there is a six- to eight-week wait to start an upgrade or installation. Tank owners can also expect to wait four to five weeks for delivery of new tanks and associated equipment. After December 22, 1998, it will be illegal to operate a UST system that is not upgraded.

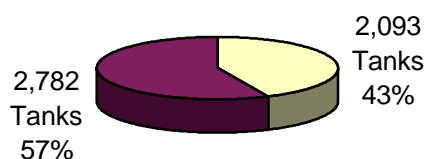
States in EPA Region VI, including New Mexico, are working together to formulate a common compliance strategy to ensure consistent enforcement actions against owners and operators that fail to upgrade their UST systems by the deadline.

As the remaining 13 months fly by and demand for quick service increases, the costs for installation services may go up. The letter from EPA head Carol Browner (reprinted in the last issue of *Tank Notes*) clearly stated that EPA will not extend the deadline, and the state Environment Department does not have the authority to extend it either.

Tank Notes has been featuring the upgrade requirements and options to meet them, and the state inspectors have held workshops and information sessions around the state to get the word out. Tank owners can call any of the UST Bureau offices for more information about the deadline.

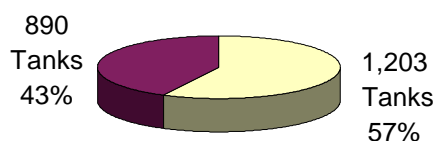


Number of Tanks



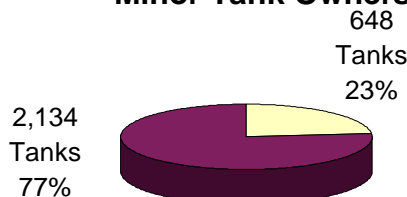
■ Major - Owns 9 or more facilities
■ Minor - Owns 8 or fewer facilities

Major Tank Owners



■ Meet 1998 Requirements
■ Do Not Meet 1998 Requirements

Minor Tank Owners



■ Meet 1998 Requirements
■ Do Not Meet Requirements

TANK NOTES

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This newsletter is for the UST owner/operator population and is provided as a general information guide only. It is not intended to replace, interpret or modify manufacturers' protocols, or the rules, regulations or requirements of local, state or federal government, nor is it intended as legal or official advice. The opinions expressed in articles written by NMED staff and others are those of the authors and do not necessarily reflect those of NMED.

We welcome your comments and suggestions. Send address changes and correspondence to: New Mexico Environment Department, Underground Storage Tank Bureau, Harold Runnels Building, 1190 St. Francis Drive, P.O. Box 26110, Santa Fe, New Mexico 87502.

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CONTENTS

- 1... Illegal to operate USTs not upgraded when deadline hits
- 3... Note from the Chief
- 3... Note from the Editor
- 3... Bureau expands Web page
- 4... Corrective Action Fund update
- 4... Web Works Well for latest RFP
- 5... Department proposes to limit assigned payments
- 5... Bureau responds to Milan and Deming emergencies
- 5... Bureau to offer more Continuing Education workshops
- 6... **Conference Report:** Secretary at Marketers and UST conferences
- 6... The role of infiltration modeling in RBCA
- 7... Field data forms the foundation for decision-making
- 8... Source removal success stories
- 8... Remediation by natural attenuation
- 9... UST Conference pushes prevention and early detection
- 9... Upgrade requirements revisited
- 10.. Bureau considers requiring fixed fee workplans
- 10.. Department proposes recycling of remediation equipment
- 10.. Leak o' the Week
- 11... Getting to Know UST
- 11... Send in the form!

Note From the Chief

J. David Duran, UST Bureau Chief

Staff from the Bureau have been working on proposed amendments to the UST Regulations which will impact reporting, remedial action activities, substantial compliance, and reimbursement of claims. Once amendments are drafted, they will be distributed for comments. A public hearing before the EIB is expected this winter or spring. Highlights of the proposed changes include:

1. Flexibility in the timeline for accomplishing tasks for corrective action and submittal of claims.
2. Registered professional engineers will be able to conduct certain remedial action activities without becoming certified scientists.
3. Fixed fee format for investigation and remedial action activities will be the preferred or required method of estimating costs.
4. Implementation of Risk-Based Corrective Action standards for soils and establishing guidelines for supporting alternative abatement standards under the Water Quality Control Commission Regulations.
5. A requirement for tracking the use, maintenance and disposal of equipment which has been paid for by the Corrective Action Fund.

The changes are intended to implement the administration's goal of finding "real world solutions to real world problems" and to hold down the costs of corrective action activities. We welcome your participation in this process.

Note from the Editor

Tank Notes thanks all of you who asked to be kept on the mailing list. We appreciate all of your comments, suggestions, criticism and praise.

With the 1998 deadline looming, we're going to keep sending *Tank Notes* to all tank owners. We believe that it's important, especially now, to keep you informed of breaking developments and to continue to remind you not to wait until '98.

If you're not a tank owner and you haven't sent in your response card, we're going to take you off the list before our next issue. If you want to keep receiving the Environment Department's premier publication, clip the card from the back page and mail it in.

Again, thanks for your patience as we buckle down and try to get the most from every dollar the UST Bureau spends.

Bureau expands Web page

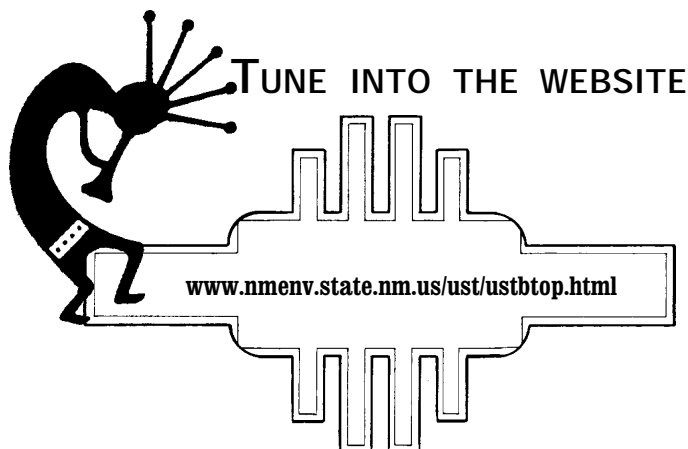
by Jenny Smith, Database Specialist, USTB

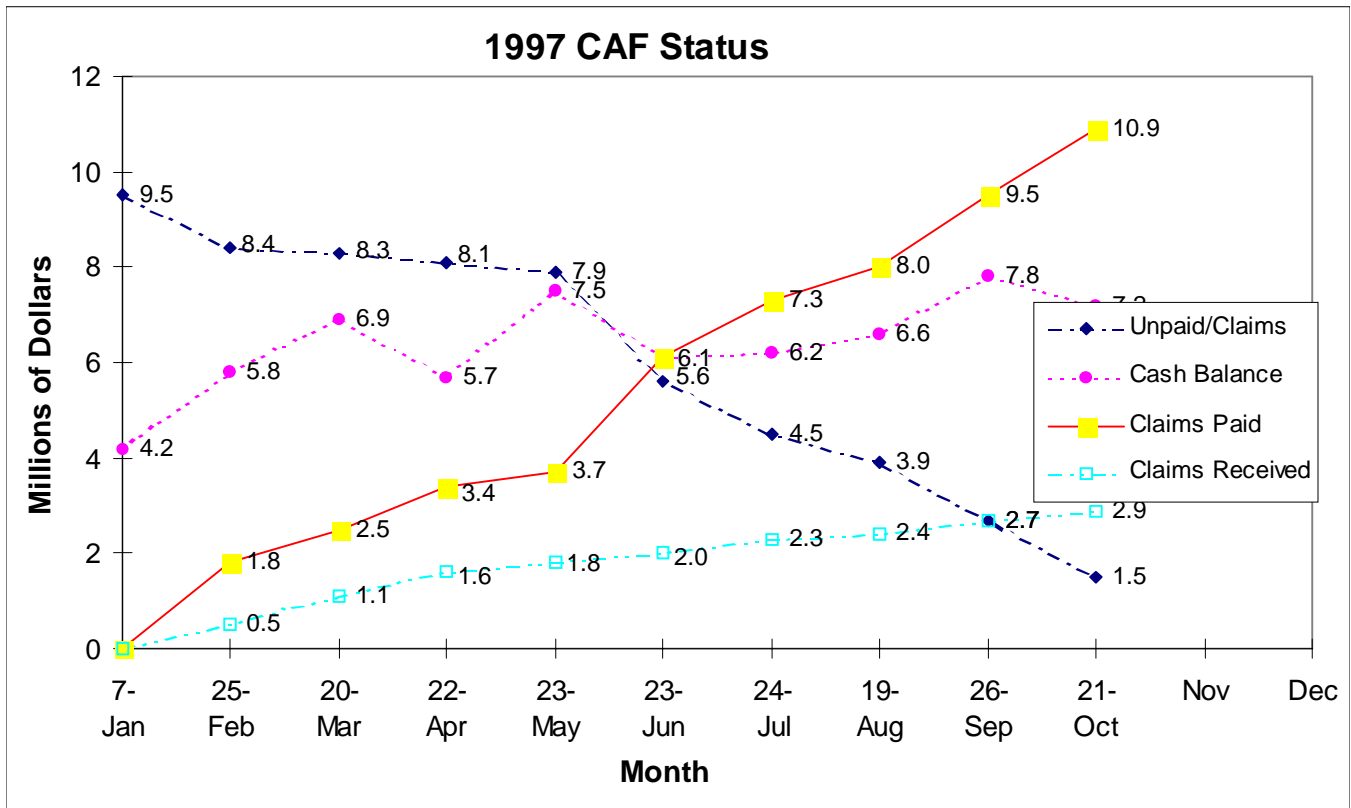
The UST Bureau greatly expanded its Internet presence in August. Jennifer Smith, the new USTB database specialist, has put the Bureau's brochures and commonly requested public information from the database onto the Environment Department's home page on the World Wide Web. She has also collected other UST documents and made them accessible via the web. You can go from the UST Bureau's page to the home pages for the U.S. Environmental Protection Agency's Office of Underground Storage Tanks and the Air Force Office of Environmental Excellence.

Highlights of the Bureau's web offerings include the incident report form, a map of Albuquerque USTs, descriptions of cleanup technologies, brochures for tank owners, frequently asked questions, an update on the activity of the Corrective Action Fund and information about the Underground Storage Tank Committee, the list of past and current leak sites, and the queue of CAF claims. The UST regulations have been on line since January 1997. The goal is to update information every month.

The Bureau will continue to add information that serves the public and regulated community. Contact Jenny through e-mail from the web page or call her at 505 827-0793 with corrections, comments and suggestions.

The UST Bureau's web home page address is:
www.nmenv.state.nm.us/ust/ustbtop.html

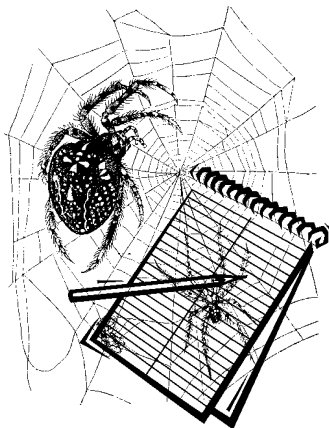




Corrective Action Fund Update

by J. David Duran and Jim Perry, Internal Auditor, NMED

The Bureau has made substantial progress in clearing out the backlog of claims which we had in July of 1996. Deposits to the Corrective Action Fund (CAF) from collection of the petroleum products loading fee have averaged \$1.3 million per month. The supervision of the Financial Management Program was returned to the Bureau in December 1996. The backlog of claims in January 1997 was \$9.5 million while the cash balance was \$4.2 million. Since that time, the Bureau has received an additional \$2.9 million in claims but has paid out \$10.9 million in claims, leaving the total of unpaid claims in October 1997 at \$1.5 million. The cash balance at the last update was \$7.2 million which is sufficient to pay the remaining claims. A graph has been developed that tracks the CAF on a monthly basis. The latest information on the status of the Fund is on the Bureau's web pages. Thanks to those of you who have waited patiently to get paid.



Web Works Well for latest RFP

by Steve Huddleson, Manager, Remedial Action Program, USTB

The Bureau recently announced an equipment inventory Request for Proposals (RFP) on its home page on the World Wide Web. The response was great. The Web appears to be a very effective way of communicating with interested parties. The Department's web page is fast becoming the platform for information exchange and advertisement of proposals. The announcement of work available on both State and RP-lead sites will assist consultants, RP's and the regulators in placing the right consultant with the job and RP. Send in your comments to Jenny Smith, the USTB webmaster, or to individual staff via the Internet.

Department proposes to limit assigned payments

by Joyce Castro, Ph.D., Geologist, Regulations, Data and Information Management, USTB

In order to stimulate greater involvement by tank owners and operators in cleanup activities at their facilities, the Department proposes to limit the assignment of payment for corrective actions performed after December 22, 1998. This change would be incorporated into the regulations currently being developed for administration of the Corrective Action Fund.

In the past, the Department has allowed owners and operators of underground storage tanks to avoid having to pay for corrective action costs before being reimbursed from the Corrective Action Fund. It has done this by accepting bills for corrective action directly from the contractors who performed the work. The tank owner "assigns" his right to receive reimbursement to the contractor. The Department hopes to lower the costs of corrective action by requiring owners and operators of underground storage tanks to pay first and then receive reimbursement. The reasoning goes that if tank owners and operators are "fronting the money" for investigation

and cleanup, they will very likely see the details of the corrective action workplans and budgets and hopefully will apply their good business sense to the project.

Under the proposed regulations, unpaid invoices will be eligible for assigned payment only under the following circumstances:

1. The owner or operator is eligible for zero deductible for the Minimum Site Assessment as calculated by the Means Test;
2. The owner or operator submits an invoice from a party who made payment to take immediate corrective action in the interest of public health, welfare and the environment;
3. As otherwise approved by the Department.

The Bureau will entertain other suggestions which will accomplish the same task of getting responsible parties more involved in the cleanup process. Please feel free to submit comments regarding this proposal to the Underground Storage Tank Bureau.

Bureau responds to Milan and Deming emergencies

by Steve Huddleson, Manager, Remedial Action Program, USTB

On October 18, 1997, the Department's Field Division advised the UST Bureau that a private, domestic water supply well in Milan, NM, appeared to be contaminated by gasoline. Project Manager Norm Pricer did some detective work that included locating and sampling nearby private water supply wells. The Bureau sent Rinchem, a USTB Emergency Response contractor, to provide bottled drinking water to the three affected households. Additional household water supplies have now been provided, and Rinchem

is conducting a review of existing geologic data which will aid in identifying the source of the contamination. There are six facilities with USTs in the area, and a minimum site assessment was "in the pipeline" for one of them when the contaminated water supplies were discovered.

Other emergency response activities of the Bureau include mobilization of emergency response contractor, Souder Miller and Associates, to Deming to sample the water supply well at the Stuckey's which was in imminent danger of being contaminated by a release at the site.

Bureau to offer more Continuing Education workshops

by Steve Huddleson, Manager, Remedial Action Program, USTB

The Bureau announced at the October 22, 1997 UST Committee meeting its intention to provide free training opportunities to certified scientists and interested parties. The proposed workshops will be half-day sessions on issues such as what will be required in plans and specifications (engineering requirements), natural attenuation and monitoring, field sampling methods and any other

area in which the Bureau may provide expertise or guidance. The workshops will be intended as "idea exchange platforms," and group participation will be considered mandatory. We hope to link the resources of the Bureau and the consulting community to provide continuing education opportunities. The free workshops will be announced on the Bureau's home page, so keep watching the Web!

Secretary addresses Marketers and UST conferences

by Nathan Wade

Environment Department Secretary Mark Weidler ushered out the Petroleum Marketers Conference with reassurances about the status of the Corrective Action Fund and accolades for the UST Bureau.

The Department's 1997 UST Conference at the Inn of the Mountain Gods in Ruidoso began as the New Mexico Petroleum Marketers annual meeting and trade show closed. The themes this year were once again how to meet the 1998 tank upgrade requirements and how risk-based management of leak sites is working in New Mexico.

The Secretary then ushered in the UST Conference. A mix of over-commitment of resources and a short-term diversion of funds created a "rocky time" for the CAF, Weidler said. However, "the fund is now coming into a healthy status."

Weidler commended Jim Perry, the Department's first internal auditor, for conducting the first audit of the fund and for then acting as the Bureau's financial manager. Listing accomplishments such as a quicker turnaround (as Weidler was speaking in September, April claims were

being audited) and for paying \$10.1 million at the new funding level, the Secretary said that Perry "deserves a lot of the credit for accelerating the process and streamlining the process."

"The worst is behind us as far as the Corrective Action Fund and the Bureau go," Weidler said. "By this time next year I expect to be sitting on a good balance."

Weidler said the Bureau's recent successes are akin to the "problem-solving" approach he stresses to his staff. "We're raising the bar, Department-wide, and implementing a sense of professionalism." He encouraged anyone who is having trouble with the Department to call him personally, and he would work to rectify any problems.

Weidler concluded his speech by reiterating what was said by Governor Gary Johnson a day earlier, that the state cannot extend the 1998 upgrade requirements.

Providers of upgrade services and corrective action services offered one-on-one advice and suggestions to tank owners who visited the trade show. Some of them spoke in the sessions that the department organized.

The appropriate role of infiltration modeling in RBCA

by Stephen Reuter, Geologist, Remedial Action Program, USTB

Daniel Stephens, Ph.D., President of Daniel B. Stephens and Associates, Inc., Mike Goodrich, Senior Hydrologist, IT Corporation, and Stephen Reuter, Geologist, NMED Underground Storage Tank Bureau, discussed the uses and limitations of modeling in decision making at sites of releases from leaking underground storage tanks.

Stephens described the input requirements for contaminant fate and transport models. His discussion concentrated on two fate and transport models, VLEACH and SESOIL. The Bureau is currently evaluating these models for use in risk based corrective action.

Goodrich then presented the types of computer models and the general applicability of each type. Most infiltration models combine hydrologic processes with contaminant fate and transport models, simulating the behavior of soil, ground water and contaminants by using mathematical formulations. Screening models make broad, simplifying assumptions, and do not allow the user to account for varying site conditions. Analytical models incorporate fewer models are the most complex and the most conceptually complete. They require the most expertise, and therefore their use is expensive. The use of these would rarely be justified at a typical UST leak site.

No matter which model is chosen to describe a natural system, the user should follow this modeling protocol or take the following steps:

- * Conceptual model - Describe the natural system addressing the geometry of system boundaries, soil type/aquifer matrix, mode of flow, properties of the fluids of concern, and properties of the contaminants of concern.
- * Code selection - Look for a proven track record and documented accuracy of the code in selecting a code. Use a code that can adequately simulate the system defined by the conceptual model and includes transport and fate processes deemed to be important for the contaminants of concern.
- * Model calibration, also called "history matching" - Compare predicted values to measured, site-specific values until a "best fit" of predicted values to observed values is obtained.
- * Sensitivity Analysis - Determine the "driving" or dominant forces controlling fate and transport of contaminants at the leak site.
- * Discussion of the sources of uncertainty - Determine the limits of use of the results of the modeling. Always needed due to the inability of any model to completely constrain the transport mechanisms, boundary conditions, degree of heterogeneity, spatial and temporal variation of input data, and initial conditions.
- * Documentation - Provide a written record of all of the above steps.

Models are tools, and like any tool, they perform best when used on the job for which they were designed.

Field data forms the foundation for decision-making

by Mark D. Schmidt, P.E., Environmental Engineer, Remedial Action Program, USTB



Collection of field data is the foundation of the overall corrective action process for remediating leaking underground storage tank sites. Improving data collection techniques and expediting site assessments can facilitate cost-effective and efficient remediation. In addition, as Risk-Based Corrective Action gains acceptance and remediation by natural attenuation is being recognized as a valid corrective action alternative, data collection methods must be consistent and comprehensive in an effort to present the actual field conditions at the site.

Roger Peery, a hydrogeologist with Shomaker and Associates, opened the session with some reflections on the early days of site assessments. He noted that prior to 1990, investigations at UST sites were performed using a drill rig and hydrogeological expertise to chase the contaminant plume. These types of investigations relied heavily on the Project Manager's ability to make field decisions and evaluate the data in a timely manner. He then compared these early investigations with the phased approach to investigations, such as the on-site investigation and the hydrogeological investigation, that exists under the current UST regulations. Peery believes that a phased approach often slows down the assessment procedure, leading to incomplete data collection and misinterpreted results. He noted, however, that as a Risk-Based Corrective Action approach develops expedited site assessments will be essential and more data will be collected in the early phases of the investigations. This information will allow the decision-makers to select an appropriate remedial action strategy early in the investigation, insuring cost control and efficient remediation.

Betsy Hovda, a hydrogeologist with Daniel B. Stephens and Associates, outlined the pros and cons of accelerated site assessment and presented some case histories. Hovda mentioned that accelerated site assessments can be used for laying out a permanent ground-water monitoring system and often work best at large sites with extensive contamination and moderate depth to ground

water. She described a site in Deming, New Mexico, where an accelerated site assessment using a strata probe traced the source of an unknown contaminant plume to a leach field rather than other more obvious suspected sources. This strata probe has hydraulic or percussion type tools with small diameter drive points to recover soil and ground water data and samples. Additional benefits include less intrusive equipment, given limited space access, and the savings of both time and money on site characterization. Hovda noted that caution should be used with this method if the depth to ground water is greater than 50 feet and gravels or bedrock are present at the site. She also warned that the ease of this method, when assessment data becomes instantaneous, can lead to over-characterization of a site, thus depleting available funds.

Christian Carlsen, a Water Resource Specialist for the NMED Underground Storage Tank Bureau, shared his expertise on the proper procedures of well purging for data collection. Carlsen, who has worked as a research hydrologist for both the USGS and EPA, explained that different well purging methods can lead to widely varying data results. A five-fold change in benzene concentrations in ground water has been observed using different purging methods. He mentioned that an arbitrary volume of water removed from a well should not be used as a guideline for sample collection but rather the equilibration of water quality indicator parameters such as pH, temperature and specific conductance. These parameters should be measured both before and after an actual sample is taken. In addition, the use of low-flow, dedicated pumps was suggested as an alternative to bailing for all types of analytes to be tested. Carlsen mentioned that an in-line water quality measurement device can be used with these pumps to establish the stabilization time for water quality parameters. On the average, following these procedures adds only 20 to 30 minutes per well when compared to bailing without establishing equilibrium in the ground water.



Source removal success stories

by Pat deGruyter, Geologist, Remedial Action Program, USTB

Moderator Patrick deGruyter (USTB) and presenters Bill Brown (Dames & Moore), Tyler Irwin (Camp Dresser & McKee), and Brian Salem (USTB) described four case histories of the source removal approach to remediation of leak sites.

Brown presented a site located in Albuquerque near the Rio Grande which had been a retail fueling station. In early 1992, following discovery of gasoline contamination in the soils at the site, approximately 380 cubic yards of contaminated soil were excavated and removed from the site and remediated by land-farming off site. This represented the majority of the contaminated soil at the site. With no additional remediation efforts, ground-water contamination, which at one time included free product, decreased over the next three months to less than state regulatory levels. The site was granted "No Further Action" status in April 1997.

Brown next presented another project, also located in Albuquerque. This site is actually composed of two separate facilities, separated by a busy street, which experienced leaks. A sparge-and-vent remediation system was installed in the soil contamination source area at each site and connected through a conduit under the street so that the separate sites could be operated as a whole. The ground-water contamination consisting of dissolved phase BTEX and MTBE had been documented to be greater than 1000 feet in length beyond the source areas. Within 18 months of start-up of the source area system, the BTEX and MTBE ground-water contamination, including the off-site plume, has naturally attenuated to less than state regulatory levels in all compliance wells. A confirmatory soil boring indicates that soil clean-up is nearly completed.

Tyler Irwin then presented a site in Cuba, New Mexico. Native soils underlying the site consist of fat

clays and other tight soils. Remediation efforts at this site were limited to excavation and disposal of approximately 920 cubic yard of gasoline-contaminated soils in November 1995. This included CAF-reimbursed soils as well as soils removed as part of UST system removal activities. The excavation was filled with pea gravel and new USTs. By May 1997, concentrations of dissolved phase ground-water contamination, with benzene concentrations which initially measured as high as 4000 ppb, had decreased to below or near practical quantitation limits in all site monitoring wells.

Brian Salem then presented a site in Hatch. Soils beneath this site consist of sands and silty sands. The UST Bureau approved reimbursement for excavation and off-site land-farming of approximately 600 cubic yards of contaminated soil from this site. The soil removal was done in conjunction with a planned UST system upgrade, resulting in additional contaminated soils being removed as part of the UST system removal. The contaminated soils were removed in January 1997. The first ground-water sampling event following soil removal activities was conducted in August 1997. Results of this sampling indicate accelerated natural attenuation of dissolved phase ground-water contamination is occurring.

These examples demonstrate the dramatic effect that source removal can have on natural attenuation of ground-water contamination. Most of the mass of contamination is tied up in the soil or as phase separated product, so it makes sense to concentrate limited remediation dollars on the bulk of the problem. Expect to see an increasing focus on source removal combined with natural attenuation for future LUST site clean-ups in New Mexico.

Remediation by natural attenuation

by Steve Huddleson, Manager, Remedial Action Program, USTB



Two case studies were presented which illustrated the

role of natural attenuation in the remediation of hydrocarbons in ground water. James Beach, a hydrogeologist with INTERA, Inc. in Austin, Texas, presented a case study of natural attenuation conducted with Rice University. This controlled investigation was conducted in conjunction with an extensive fate and transport study which resulted in an unusually detailed site characterization of the test location. The highly controlled conditions provided an excellent platform to test the accuracy of the modeling effort and attempt to quantify the natural degradation occurring.

Lower concentrations of dissolved oxygen within the plume boundary verified that aerobic degradation was occurring.

Karen Synowiec is a lead hydrogeologist in the Groundwater Technology Team of Chevron Research and Technology Company, and is based in their Richmond, California facility. Synowiec provided a case study of a release of gasoline and diesel from a pipeline in Tracy, California. Utilizing a protocol developed by Chevron to quantify natural, biologically mediated degradation, primary (reduction in contaminant concentrations) and secondary (presence of other chemical indicators of biological degradation) lines of evidence were developed indicating that natural bio-attenuation of the contaminants was occurring at the site.

UST Conference pushes prevention and early detection of leaks

by Abel Ramirez, John French, Harry Gunn, and Bob Miller, *Prevention/Inspection, USTB*

The conference once again kept up a steady discussion of ways to meet the December 1998 requirements which are aimed at preventing costly and damaging leaks. **Beyond Tank Sticks: How to Monitor Your Entire UST System** described a computer based product designed to monitor the entire UST system. With its computer and sensors, the software can send alarms and/or shut down pumps. If a release is detected, a call goes out to a technician at a centralized office, and if the technician verifies a release problem, a dispatcher sends out a service contractor. The system can even generate all regulatory and release compliance reports.

Keeping in Compliance to Avoid Releases urged tank owners to retain their paperwork, including inspections, letters, repair and installation receipts, and test results and suggested they set up two file folders, "Operations" and "Equipment and Construction."

Corrosion Protection and Release Detection reminded tank owners of the necessity to properly maintain the new electronic tank gauges and line leak detectors as well as the computer programs that are associated with them. Owners should follow the manufacturer's program checks and use trained technicians for the new equipment. Manual tank gauging may be continued on some small

tanks after the 1998 upgrade deadline if certain conditions are met.

On December 22, 1998, older UST systems must meet all EPA upgrade requirements for spill prevention, overfill prevention, and cathodic/corrosion protection. The **Assessment of Systems for Upgrades** session observed that UST sites installed before 1989 usually need complete upgrades to meet the 1998 upgrade deadline. Tank systems installed after 1988 were required at the time of installation to have built-in equipment and technology to prevent spills during fuel drops, to prevent overfilling of tanks, and to control corrosion of tanks and lines.

All owners and operators of USTs are responsible for contacting their service contractors and state UST inspectors to be sure their systems are completely upgraded before the deadline. Many operators have delayed installation of corrosion protection upgrades and spill/overfill devices. Corrosion protection is provided by a cathodic protection system or an interior lining or both. In the case of cathodic protection, a qualified "CP tester" must check a system within six months after start-up and every three years thereafter. The operator performs a check every 60 days and needs to document the date, time, and meter readings.

What are the 1998 upgrade requirements for existing USTs?

Spill Protection

Existing tanks* must have catchment basins to contain spills from delivery hoses.

Overfill Protection

Existing tanks must use ONE of the following:

- Automatic shutoff devices
- Overfill alarms
- Ball float valves

If your system has suction piping, you cannot use a ball float valve for overfill protection.

Corrosion Protection

Existing tanks must meet ONE of the following:

- Steel tanks must have corrosion-resistant coating AND cathodic protection (such as a sti-P3 tank)
- Construction from noncorrodible material, such as fiberglass
- Steel tank clad with noncorrodible material (such as an ACT-100 tank) or tank enclosed in noncorrodible material

- Uncoated steel tank has cathodic protection system (either sacrificial anodes or impressed current)
- Uncoated steel tanks with the interior lined with noncorrodible material
- Uncoated steel tanks with cathodic protection AND interior lined with noncorrodible material

Existing piping must have ONE of the following:

- Uncoated steel piping has cathodic protection
- Steel piping has a corrosion-resistant coating AND cathodic protection
- Piping made of (or enclosed in) noncorrodible material (such as fiberglass)

* An **existing tank** system is one that was in existence at the time the regs became effective in 1988. Any tanks installed since then are supposed to meet new tank standards and those standards are enforceable for those tanks right now. So the tanks that have been given until 1998 to be upgraded and that are allowed to meet the more lenient upgrade standards are only tanks for which installation commenced on or prior to October 12, 1988.

Department proposes recycling of remediation equipment

by Joyce Castro, Ph.D., Geologist, Regulations, Data and Information Management, USTB

Every year the Corrective Action Fund (CAF) spends millions of dollars to purchase or reimburse owners and operators of underground storage tank facilities for their purchases of remediation equipment. In an attempt to make the best use of available funds, the Underground Storage Tank Bureau proposes a system to redistribute reusable or refurbishable equipment purchased by the Fund. Leased equipment will be exempt from this plan.

This redistribution plan would apply to any transportable unit or system initially costing \$1000 or more which has been purchased or reimbursed by the CAF. The equipment would remain under control of the Department and could not be sold or otherwise disposed without Departmental approval. Each owner or operator, as a condition for reimbursement for the purchase of remediation equipment, would be required to execute an Equip-

ment Disposition Agreement with the Department. Under this agreement, when equipment is no longer required at a corrective action site the owner would be advised as to the current depreciated value of the equipment and options for its removal from his or her property.

The equipment could be relocated to another CAF remediation site, rented to a non-CAF remediation site or sold. If equipment is relocated to another site, the former owner's site account would be credited the current depreciated book value, and the new owner's site account would be debited the book value. Costs associated with moving, refurbishing and installing the equipment would be paid by the new owner as reimbursable costs. If the equipment is not relocated and, instead, is sold or salvaged by the owner or operator, he or she must reimburse the CAF the selling price or the depreciated book value, whichever is greater. These funds would be credited to the Corrective Action Fund. Comments regarding this plan are encouraged.

Bureau considers requiring fixed fee workplans

by Steve Huddleson, Manager, Remedial Action Program, USTB

Over the past few years, the UST Bureau has changed the emphasis from "time-and-materials" workplans to "fixed fee" workplans. As project managers for the Bureau and those working for geotechnical firms all have gained experience in the varied site conditions found in New Mexico, they have become better able to predict costs and anticipate problems. The labor-intensive process of providing back-up documentation for the time-and-materials invoices and claims is costly and time consuming for both the consultants and the state fund administrators. Under a fixed fee system, a single sum is agreed upon for a certain work product. If the work is completed as agreed upon, the billing for that single fee is very simple and the stack of receipts and timesheets much shorter, resulting in lower labor and administrative costs for everyone.

The fixed fee success story has prompted the Bureau to consider requiring all work to be conducted in this manner. The Bureau considers that there may be isolated circumstances in which time and materials may still be the most appropriate billing method. This change are being incorporated into the UST regulations as part of the revision process that is now underway. The Bureau would appreciate comments relating to the proposed change. Contact Steve Huddleson at 505/827-0173.

Leak o' the Week

*Report releases to the following staff during working hours.
For emergencies during evenings and weekends, call the
NMED emergency number, 827-9329.*

<i>Nov 10 - Nov 14</i>	<i>Jane Cramer</i>	<i>841-9477</i>
<i>Nov 17 - Nov 21</i>	<i>Kalvin Martin</i>	<i>841-9186</i>
<i>Nov 24 - Nov 28</i>	<i>David Nye</i>	<i>841-9478</i>
<i>Dec 01 - Dec 05</i>	<i>Christian Carlsen</i>	<i>827-2914</i>
<i>Dec 08 - Dec 12</i>	<i>Lorena Goerger</i>	<i>827-0110</i>
<i>Dec 15 - Dec 19</i>	<i>Norman Pricer</i>	<i>841-9189</i>
<i>Dec 22 - Dec 26</i>	<i>Steve Jetter</i>	<i>841-9461</i>
<i>Dec 29 - Jan 02</i>	<i>Tom Lack</i>	<i>841-9479</i>
<i>Jan 05 - Jan 09</i>	<i>Brian Salem</i>	<i>827-2926</i>
<i>Jan 12 - Jan 16</i>	<i>Jane Cramer</i>	<i>841-9477</i>
<i>Jan 19 - Jan 23</i>	<i>Kalvin Martin</i>	<i>841-9186</i>
<i>Jan 26 - Jan 30</i>	<i>David Nye</i>	<i>841-9478</i>
<i>Feb 02 - Feb 06</i>	<i>Christian Carlsen</i>	<i>827-2914</i>
<i>Feb 09 - Feb 13</i>	<i>Lorena Goerger</i>	<i>827-0110</i>
<i>Feb 16 - Feb 20</i>	<i>Norman Pricer</i>	<i>841-9189</i>
<i>Feb 23 - Feb 27</i>	<i>Steve Jetter</i>	<i>841-9461</i>
<i>Mar 02 - Mar 06</i>	<i>Tom Lack</i>	<i>841-9479</i>
<i>Mar 09 - Mar 13</i>	<i>Brian Salem</i>	<i>827-2926</i>
<i>Mar 16 - Mar 20</i>	<i>Jane Cramer</i>	<i>841-9477</i>
<i>Mar 23 - Mar 27</i>	<i>Kalvin Martin</i>	<i>841-9186</i>
<i>Mar 30 - Apr 03</i>	<i>David Nye</i>	<i>841-9478</i>



Getting to Know UST

Steve Huddleson comes Back to the Future



As a practising geologist in New Mexico for twenty-one years, Steve Huddleson brings a diverse background to the Underground Storage Tank Bureau. Steve and his wife moved to New Mexico in 1975 from Missouri, where he got his B.S. in Geology (Environmental Geology Option) from Southwest Missouri State University. Missouri, he says, is "exactly like New Mexico, only totally different."

The lure of uranium and a career opportunity with Kerr McGee Nuclear Corporation brought them to Grants, where Steve worked as a mining production geologist. After ten years with Kerr McGee, the company closed its uranium mining operations in 1985.

Following an abortive attempt in the computer science master's degree program at UNM, Steve worked for the Highway and Transportation Department for six years. Initially involved in the geotechnical field, Steve became the Chief of the Geology and Bridge Foundation Unit in 1988. Having all of the Highway Department drill rigs at his disposal, Steve increasingly found himself involved in environmental issues which faced the Highway Department.

Following an intensive crash course in leaking underground storage tanks on a project in Hatch, NM in 1991, Steve became the SHTD's first Hazardous Materials Coordinator. Representing the SHTD in environmental issues ranging from road salt to lead (including the Terrero Mine Remedial Investigation as the SHTD Project Manager), to creosotes.

Steve left the SHTD to enter the consulting field. For the next three and a half years, Steve provided environmental consulting services for a variety of underground storage tank investigation and remediation projects, as well as solid waste facility siting investigation and closure projects. Transportation issues remained of key interest, and Steve served on two environmental committees of the Transportation Research Board.

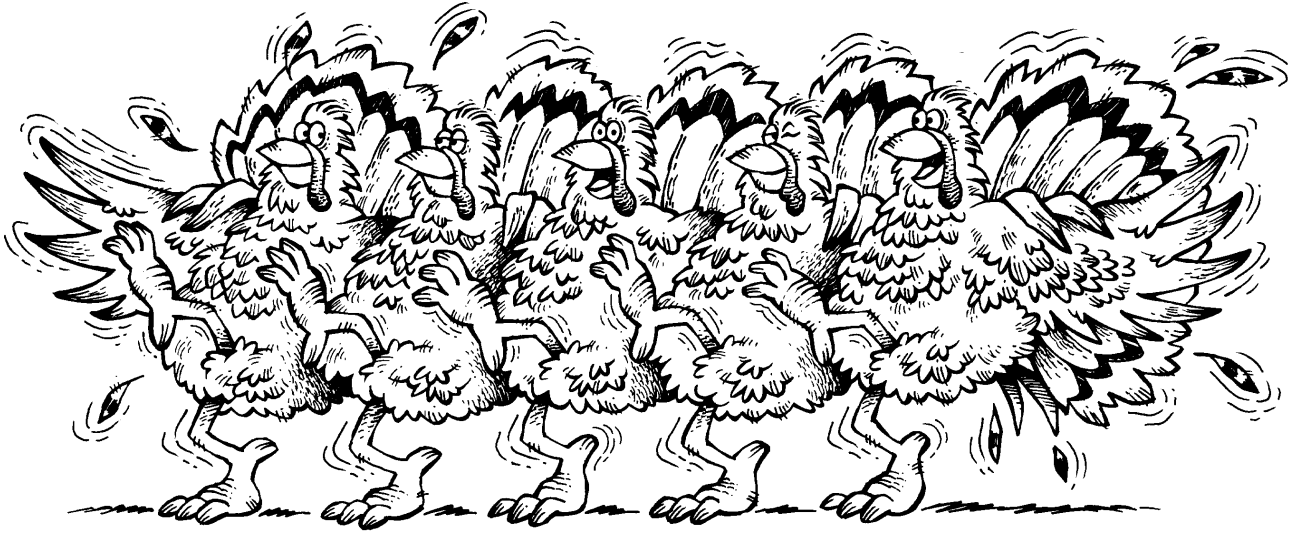
Steve is a Registered Professional Geologist in Wyoming and Missouri, a Certified Professional Geologist (American Institute of Professional Geologists), and a New Mexico Certified Scientist. Steve remains an avid photographer (published no less) and is, as he puts it, a blues guitarist working a day job.

Joining the Bureau completes the triangle for Steve, from representative of a major tank owner (NMSHTD), to consulting, and finally as a regulator. Steve is very enthusiastic about rejoining State government and feels like he has come home.

Steve Huddleson
Senior Consultant

To continue receiving *Tank Notes*, if you haven't done so already, fill out this form, put it in a stamped envelope and drop it in the mail. Be sure to include the mailing label on the reverse side so we know who you are. Mail to: NMED, UST Bureau, Circulation Manager, 1190 Saint Francis Drive, P.O. Box 26110, Santa Fe, NM 87502

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